

AMENDMENTS TO THE CLAIMS

Claims 1 to 3 (cancelled).

Claim 4 (currently amended)

A compound ~~in accordance with anyone of claims 1 to 3 viz.~~ of claim 21 selected from the group consisting of 3-(3-dodecanoyloxytetradecanoylamino) 9-(3-hydroxytetradecanoylamino)4-oxo-5-azadecan-1, 10-diol and/or 1,10-bis-(dihydrogenphosphate) and its addition salts formed with an organic or a mineral base.

Claim 5 (currently amended)

A compound of claim ~~20~~ 21 selected from the group consisting of 3-(3-dodecanoyloxy-tetradecanoylamino) 9-(3-hydroxytetradecanoylamino)4-oxo-5-azadecan-1, 10-diol 1,10-bis-(dihydrogenphosphate) and its addition salts formed with an organic or a mineral base.

Claim 6 (currently amended)

A compound of claim ~~20~~ 21 selected from the group consisting of 3-(3-hydroxytetradecanoylamino) 9-(~~3-dodecaoyloxytetradecanoylamino~~ dodecanoyloxytetradecanoylamino)4-oxo-5-azadecan-1, 10-diol, 1,10-bis-(dihydrogenphosphate) and its addition salts formed with an organic or a mineral base.

Claim 7 (currently amended)

A compound of claim 20 21 selected from the group consisting of 3-(3-dodecanoyloxytetradecanoylamino) 9-(3-hydroxytetradecanoylamino)4-oxo-5-azadecan-1, 10-diol mono 1-dihydrogenphosphate and its addition salts formed with an organic or a mineral base.

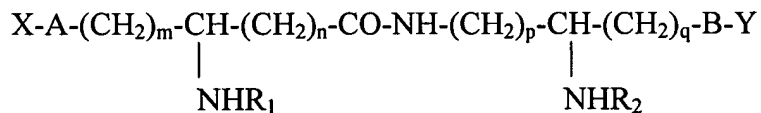
Claim 8 (previously presented)

A compound of claim 20 21 selected from the group consisting of 3-(3-hydroxytetradecanoylamino) 9-(3-dodecanoyloxytetradecanoylamino)4-oxo-5-azadecan-1, 10-diol mono 1-dihydrogenphosphate and its addition salts formed with an organic or a mineral base.

Claims 9 to 15 (cancelled)

Claim 16 (currently amended)

A pharmaceutical ~~Pharmaceutical compositions~~ composition containing as an active ingredient at least one compound of ~~general~~ the formula I in accordance with claim ~~1~~ 21:



(I)

wherein R₁ and R₂ each designate an acyl group derived from a saturated or

unsaturated, ~~straight or branched~~ chain-carboxylic acid having from 2 to 24 carbon atoms, which is unsubstituted or bears one or more hydroxyl, alkyl, alkoxy, acyloxy, amino, acylamino, acylthio and ((C₁₋₂₄)alkyl)thio group substituents,

subscripts m, p and q are integers ~~ranging~~ from 1 to 10,

X and Y each designate a hydrogen or an acid group either in neutral or charged form,

A and B, ~~being identical or different from each other~~, are individually an oxygen, sulfur atom or an imino group,

together or in admixture with a non-toxic, pharmaceutically acceptable, inert excipient or carrier.

Claim 17 (currently amended)

The pharmaceutical compositions in accordance with; claim 16, wherein the compound of formula I is ~~one~~ a compound of the type where X and/or Y designate a phosphono radical and further A and B designate an oxygen atom.

Claim 18 (previously presented)

The pharmaceutical composition in accordance with claim 17, wherein the active ingredient is in salt form with an organic or mineral base intended for therapeutic use.

Claim 19 (previously presented)

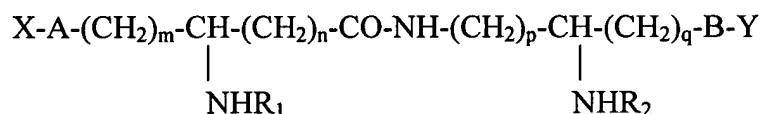
The pharmaceutical composition in accordance with claim 16, wherein the active ingredient is in the form of a pure enantiomer or in the form of a mixture of stereoisomers.

Claim 20 (currently amended)

A method of modulating immune response in warm-blooded animals comprising administering to warm-blooded animals an immune responsive amount of a compound of claim 1 able to modulate the same.

Claim ~~20~~ 21 (currently amended)

A N-acyl-~~dipeptide~~ dipeptidic compound of the formula



I

wherein R₁ and R₂ are each an acyl moiety of a saturated or unsaturated carboxylic acid of 2 to 24 carbon atoms unsubstituted or substituted with at least one member of the group consisting of -OH, ~~acyl~~ alkyl and alkoxy of 1 to 24 carbon atoms, -NH₂, acyloxy of an organic carboxylic acid of 1 to 24 carbon atoms and acylamino and acylthio of a carboxylic acid of 1 to 24 carbon atoms and alkylthio of 1 to 24 carbon atoms, m, n, p and q are independently integers from 1 to 10, n is an integer from 0 to 10, X and Y are independently hydrogen or an acid group selected from the group consisting of

carboxyalkyl of 1 to 5 carbon atoms,

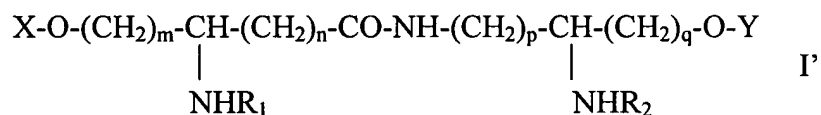
-CH-[(CH₂)_m·-COOH]-[(CH₂)_n·-COOH] where m' and n' are individually integers of 0 to 5, phosphonoalkyl of 1 to 5 carbon atoms, dihydroxyphosphonyloxyalkyl of 1 to 5 carbon atoms, dimethoxyphosphonyl, ~~phosphone~~ phosphonyl, hydroxy sulfonyl, and hydrosulfonyloxyalkyl of 1 to 5 carbon atoms in neutral or charged form with at least one of X and Y being other than hydrogen and A and B are individually selected from the group consisting of oxygen, sulfur and -NH-.

Claim ~~21~~ 22 (currently amended)

A compound of claim ~~20~~ 21 wherein at least one of X and Z is other than hydrogen in salt form with a non-toxic, pharmaceutically acceptable base.

Claim ~~22~~ 23 (currently amended)

A compound of claim ~~20~~ 21 having the formula



wherein R₁ and R₂ are individually an acyl moiety of a saturated or unsaturated carboxylic acid of 2 to 24 carbon atoms, unsubstituted or substituted with at least one member of the group consisting of -OH, alkyl and alkoxy of 1 to 24 carbon atoms, -NH₂, acyloxy of an organic carboxylic acid of 2 to 24 carbon atoms and acylamino and acylthio of an organic carboxylic acid of 2 to 24 carbon atoms and alkylthio of 1 to 24

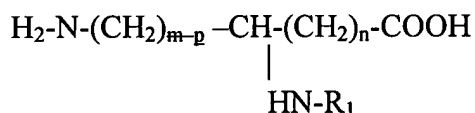
carbon atoms, m, p and q are individually integers from 1 to 10, n is an integer from 0 to 10 and X and Y are individually hydrogen or phosphono.

Claim ~~23~~ 24 (currently amended)

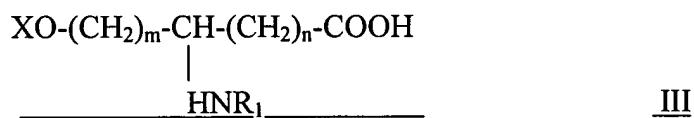
A compound of claim ~~20~~ 21 having an (R) or (S) configuration and racemates thereof.

Claim ~~24~~ 25 (currently amended)

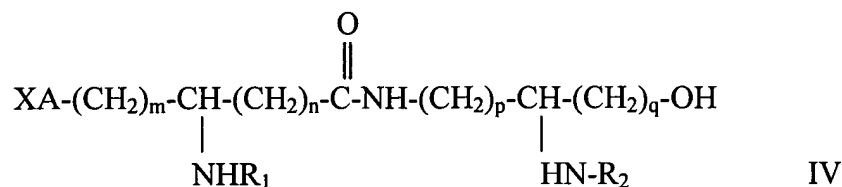
A process for the preparation of a compound of claim ~~20~~ 21 which comprises blocking ~~$\{(q+1)\}$~~ n and ω amino groups of a compound of the formula $H_2N-(CH_2)_p-NH_2-CHNH_2-(CH_2)_{q+1}-COOH$ with a blocking agent, reacting the free carboxylic group with a reducing agent to form the corresponding alcohol, removing the amine blocking group in ~~$(q+1)$~~ n position to obtain the free amino group, reacting with a reactive derivative of an acid of the formula R_2OH wherein R_2 is an acyl moiety to acylate the alcohol moiety, subjecting the product to hydrogenolysis to free the terminal amino to obtain the compound of the formula



which is reacted in the presence of a peptide condensing agent in an inert solvent with a ω -hydroxy, amino or thioamino acid of Formula III



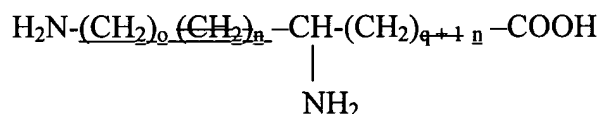
wherein m and n are defined as previously given to obtain a compound of the formula



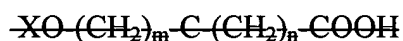
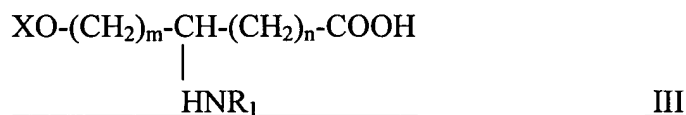
optionally protecting the alcohol groups with a substitution reagent in the presence of a coupling agent and optionally subjecting the product to a catalytic hydrogenation or deprotection step to obtain the compound of Formula I.

Claim 25 26 (currently amended)

A process for the preparation of a compound of claim 22 23 comprising the (q + 1) and ω amine blocking functions of a compound of the formula

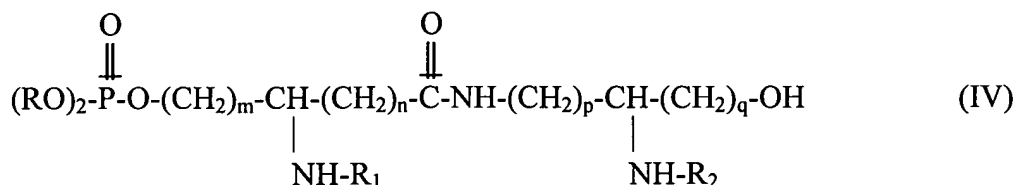
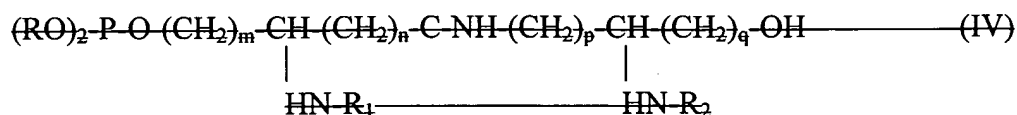


with a blocking agent, reacting the ~~latter~~ resulting compound with a reducing agent to reduce the free ~~COOH~~ COOH to -CH₂OH, freeing the (q + 1) amine function, acylating the ~~latter~~ resulting compound with a functional derivative of a carboxylic acid of the formula R₂-OH, subjecting the latter to hydrogenolysis to free the terminal amine to obtain a compound of the formula



III

in the presence of a peptide condensation agent in an inert solvent to obtain a compound of the formula

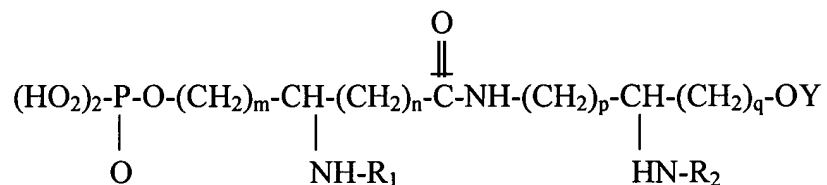


wherein R is a readily hydrolyzable group

reacting the latter with a phosphorylating agent in the presence of a coupling ~~agent~~ agent,

subjecting the resulting compound to a 2 step catalytic hydrogenation to free the -OH

groups and the optionally present phosphate to obtain a compound of the formula



wherein Y is hydrogen or phosphono.

Claim 26 27 (currently amended)

The process of claim 24 25 wherein the product is further reacted with a base to form the salt thereof.

Claim ~~27~~ 28 (currently amended)

The process of claim ~~25~~ 26 wherein the product is further reacted with a base to form the salt thereof.

Claim ~~28~~ 29 (currently amended)

The ~~method~~ process of claim 24 25 wherein R₁-OH is 3-dodecanoyloxy-~~tetradeconic~~ tetradecanoic acid.

Claim ~~29~~ 30 (currently amended)

The ~~method~~ process of claim 24 25 wherein R₂-OH is 3-~~hydroxytetradeconic~~ hydroxytetradecanoic acid.

Claim ~~30~~ 31 (currently amended)

The method of inducing immuno-modulation in warm-blooded animals in need thereof comprising administering to said warm-blooded animals an immuno-modulating effective amount of a compound of claim ~~20~~ 21.